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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/840,035

05/06/2004

Peter Wirth

4452-640

7775

27799 7590 01/04/2007
COHEN, PONTANI, LIEBERMAN & PAVANE
551 FIFTH AVENUE
SUITE 1210
NEW YORK, NY 10176

EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT

PAPER NUMBER

3726

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/840,035	WIRTH ET AL.	
	Examiner	Art Unit	
	Marc Jimenez	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9-19-05, 5-6-04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites “one of the body” in line 7. It is unclear what this limitation encompasses. It is unclear what element “one of the body” is referring to.

Claim 1 recites “said support” in line 7. It is unclear whether the “support” in line 2 or the “support body” in line 4 is being referred to. Furthermore, it is unclear whether the “support” in line 2 is the same element as the “support body recited in line 4.

Claim 4 recites “said opposed supports” which lacks proper antecedent basis.

Claim 3 recites “wherein the diameter of the forming tool is smaller than the through opening”. This limitation is unclear because the diameter of the forming tool would have to be the same size as the opening. In addition, if there are other steps to make the diameter of the opening larger than the forming tool, Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-6** rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19846460 (hereinafter '460) in view of Mueller et al. (US5218853).

'460 teaches a method for manufacturing a piston comprising a disk shaped base body 1 having opposed sides, through channels 10,11 between the sides, and a support 6 raised above one of the sides for supporting a valve disk, each through channel 10,11 being surrounded by a support body 13,12 raised above one side for supporting a valve disk, and a recess (see opposite side of 13,12) recessed below the opposite side, the method comprising: receiving the base body in a tool, and pressing a forming tool into one of the body to form the support 6 by material flow.

'460 teaches the invention cited above with the exception of receiving the base body between a pair of tool halves to form the base body. It is noted that '460 forms the base body with sequential forming steps as shown in figure 5.

Mueller et al. teach a single cycle closed die metal forging method including the step of receiving a base body 48 between a pair of tool halves 14,16 to form the base body.

Art Unit: 3726

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of '460 with the step of receiving the base body between a pair of tool halves to form the base body, in light of the teachings of Mueller, in order to "save considerable time and cost" and to "form the entire part in one cycle" as suggested by Mueller in col. 1, lines 45-57.

Note that both '460 and Mueller et al. teach forming a through opening by removing material (see figure 5 of '460 and figure 4 of Mueller et al.

Note that '460 teaches a pair of opposed supports 12,6. in addition, Mueller teaches opposed forming tools 26,28,20.

Note in figure 2 that Mueller teaches that the stamping blank 48 has a greater thickness than the base body after forming (figure 3).

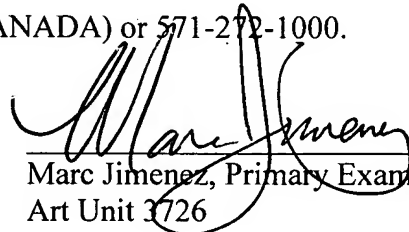
Claim 3 as best understood is considered an obvious matter of design choice to a person of ordinary skill in the art, at the time of the invention. For example, official notice is taken that it was well known to a person of ordinary skill in the art, at the time of the invention, to perform additional machining steps of an opening formed by forging in order to set the size of the opening. Material removal by machining would make the final diameter of the opening larger than the diameter of the forming tool.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (571) 272-4530. The examiner can normally be reached on Monday-Thursday.

Art Unit: 3726

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Marc Jimenez, Primary Examiner
Art Unit 3726

MJ
12-20-06